

IN THE SPECIFICATION:

Please insert the following new heading after line 1 and before line 2 of page 1:

Field of the Invention

Please insert the following new heading after line 4 and before line 5 of page 1:

Background Information

Paragraph beginning at line 22 of page 3 has been amended as follows:

According to the present invention, which is directed to the solution to the above problems, a liquid crystal display device has an arrangement wherein dummy segment electrodes and dummy common electrodes are disposed at marginal areas around a display screen including a group of segment electrodes and a group of common electrodes, and wherein the dummy segment electrodes are applied with a segment signal waveform exceeding a selection voltage of any common signal for liquid crystal selection and the dummy common electrodes are applied with a common signal waveform exceeding a selection voltage of any segment signal waveform for liquid crystal selection, whereby a frame is displayed outside the display screen.

Paragraph beginning at line 23 of page 5 has been amended as follows:

A liquid crystal display device according to the invention includes a liquid crystal panel, and a driver IC for driving the liquid crystal panel wherein a liquid crystal layer is interposed between a transparent plate provided with a group of segment electrodes and a transparent counter plate provided with a group of common electrodes and a transparent counter plate provided with a group of common electrodes. The driver IC applies a respective signal (driving signal waveform) to a segment electrode and a common electrode constituting a pixel to be driven for normal image display, whereas the IC driver applies a frame-display common signal and a frame-display segment signal to a common electrode and a segment electrode to be driven for frame display, respectively. Specifically, the frame-display common signal has a such a waveform as to exceed a selection voltage of any segment signal waveform for liquid crystal selection, whereas the frame-display segment signal has such a waveform as to exceed a selection voltage of any common signal for liquid crystal selection. Thus ~~is~~ accomplished a frame display on a display screen (lines in a normally-ON state are present) is accomplished.

Paragraph beginning at line 18 of page 6 has been amended as follows:

A segment electrode (line) to be placed in the ON state is applied with the same waveform as that representative of segment selection data (All-ON data) used in a normal display drive. A common waveform for normal display drive is applied to a group of common electrodes intersecting with the segment electrode and hence, all the pixels constituted by the segment electrode are applied with a voltage of an effective value equivalent to white display data. Thus ~~is displayed~~ a vertical frame line is displayed on the screen.

Paragraph beginning at line 7 of page 8 has been amended as follows:

Fig. 1 schematically shows a construction of a display screen (wiring pattern) of a liquid crystal display device according to an embodiment of the invention. As shown in Fig. 1, a display screen 2 of a liquid crystal panel is essentially composed of $m \times n$ pixels. In a screen portion, m segment electrode wirings formed on a transparent plate and n common electrode wirings formed on a transparent counter plate intersect with one another to define the pixels. The segment electrode wirings and the common electrode wirings are applied

with a liquid crystal control signal (driving signal) for image display from unillustrated segment driver IC and common driver IC, respectively. Dummy segment driver IC, respectively. Dummy segment wirings 4, 5 are laid on laterally opposite sides externally of the aforesaid mxn pixels (display screen 2). Dummy common wirings 1, 3 are also laid on vertically opposite sides externally of the mxn pixels. The dummy segment wirings 4, 5 are applied with a signal waveform exceeding a selection voltage of any common signal for liquid crystal selection, whereas the dummy common wirings 1, 3 are applied with a common signal waveform exceeding a selection voltage of any segment signal waveform for liquid crystal selection. Thus is effected the display of a frame outside the display screen. The common signal (dummy common signal) applied to the dummy common wirings has a waveform which is asynchronous to a frame line marker ~~an FLM signal~~ (hereafter "FLM" signal), has an equal H·L time in one period, and does not coincide with an M signal. For example, a usable dummy common signal may have a signal waveform obtained by dividing down the M signal for level shift to the same potential as that of a segment voltage. In this manner, the dummy common signal may be generated based on the input signal to the driver IC and the potential for driving the

liquid crystal panel. Thus, the frame display can be accomplished by merely adding a simple circuit without increasing the scale of the liquid crystal driver circuit.

Paragraph beginning at line 25 of page 15 has been amended as follows:

Thus ~~is provided the~~ the present invention provides an easy and low-cost frame display outside the display screen of the passive drive system without being restricted by the specification of the liquid crystal controller or the driver. Accordingly, the invention contributes to enhanced qualities of consumer products such as cameras, cellular phones and watches in the field of the electronic where the liquid crystal display devices are widely used.